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The Impact of Research Workbooks on Assessment

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UNIVERSITY OF NORTHERN COLORADO
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The Graduate School

THE IMPACT OF RESEARCH WORKBOOKS ON ASSESSMENT

An Action Research Project Submitted in Partial Fulfillment
of the Requirements for the Degree of
Master of Arts

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School of Art and Design

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Entitled: *The Impact of Research Workbooks on Assessment*

has been approved as meeting the requirements for the Degree of Master of Arts in
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ABSTRACT

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This study explores the effectiveness of research workbooks as an assessment tool of artistic growth in an elementary art classroom. Since my teacher evaluation is partially based on student data from content areas I do not directly teach, I needed to provide evidence of student learning in art that could become the basis of teacher evaluations. Using a hybrid approach of action research and a/r/tography, I implemented research workbooks within my teaching and studio practices. I reviewed the evidence the research workbooks provided of my students' proficiency as well as my own artistic skill as described by the Colorado Academic Standards for the Visual Arts (VA CAS). While research workbooks may not be an adequate way to measure student learning on their own, they led to some unexpected findings. As an artist-teacher modeling the research workbook, I engaged in personal artmaking, showed work in multiple exhibitions including a solo show and renewed my passion for art and teaching. I improved my teaching practice by developing inquiry-based units, systematically collecting and analyzing data, and creating a community of artists in my school. Whether research workbooks combined with other assessment methods may contribute to an improved teacher evaluation process for art teachers could be an area for future research.

TABLE OF CONTENTS

CHAPTER

INTRODUCTION.....	1
Rationale	1
Background of Specific Context	4
Research Questions	5
Definition of Terms	7
REVIEW OF LITERATURE.....	8
The Role of Assessment	8
Models of Assessment	10
The Impact of Studio Practice on Teaching Practice	14
METHODS.....	17
A/r/tography and Action Research Design	17
Methods and Procedures	18
Participants	29
Data Collection	31
Data Analysis Procedures	33
Limitations	33
RESULTS.....	35
Data Analysis	35
Data Analysis Summary	52
DISCUSSION AND CONCLUSIONS.....	54
Implications of this Research and Future Research	54
Recommendations	58
REFERENCES.....	60
Appendix A: Institutional Review Board Approval.....	63
Appendix B: Who am I Lesson Plan.....	64
Appendix C: What is My Community Lesson Plan.....	66

List of Tables

Table 1: Research Workbook Rubric.....	19
Table 2: Self-assessment Rubric	20
Table 3: Timeline of Activities Throughout <i>Who am I?</i> unit	22
Table 4: Timeline of Activities throughout <i>What is my community?</i> Unit	25
Table 5: Timeline of Activities throughout <i>What is my world?</i> Unit	27
Table 6: Participants' Identification by Race/Ethnicity	31
Table 7: Number of Standards the Researcher found Evidence of Proficiency for per Unit.....	35
Table 8: Comparison of Self-assessments to Researcher's Assessments for the 1st Unit	36
Table 9: Comparison of Self-assessments to Researcher's Assessments for the 2nd Unit	37
Table 10: Comparison of Standards Researcher Found Evidence for per Unit	43

List of Figures

Figure 1: Amy Felder, <i>Northern Colorado</i> , 2019. Paint and thread on fabric, 32x27inches	24
Figure 2: Amy Felder, <i>QR Code</i> , 2019	25
Figure 3: Martin's Artist Statement from the 2nd Unit	41
Figure 4: Martin's Map of his Neighborhood	41
Figure 5: Tiffany's Artist Statement from the 1st Unit	42
Figure 6: Tiffany's Artist Statement from the 2nd Unit	42
Figure 7: Front and Back of Tiffany's Self-assessment for the 2nd Unit	45
Figure 8: Jessica's Final Artwork for the 2nd Unit	48
Figure 9: Felicia's Observation Drawing of Backpack Hangers	49
Figure 10: Felicia's Artist Statement for 1st Unit	50

CHAPTER I

INTRODUCTION

Rationale

In recent years, teacher evaluations have become increasingly dependent on data regarding student performance on standardized tests (Sabol, 2013). As a result, some art teachers, including myself, are evaluated based on student performance in English language arts (ELA) and/or mathematics. This evaluation system is not only inappropriate but also restrictive as noted by Sabol:

Strategies that evaluate all teachers based only on student achievement in math and language arts have the unintended consequence of narrowing the curriculum and reducing the opportunities for all students to acquire critical skills in innovation, creativity, critical thinking and problem solving, and collaboration. (p. 43)

In order to ensure students continue to have opportunities to become creative problem solvers, I need to offer an alternative method for evaluating visual arts teachers. I need to provide my evaluator with a more appropriate means to evaluate my performance.

In ELA and math, standardized tests measure student performance. However, art does not lend itself to testing recall of information and needs other assessment strategies (Sabol, 2013). While I recognize that standardized testing is not appropriate for art given that its beauty lies in its open-endedness (Eisner, 2003; Sabol, 2013), I do want to discover the best means for students to show growth in art. I believe Marshall and D'Adamo's "Art Practice as Research in the Classroom: A New Paradigm in Art Education" (2011) may have provided one answer – research workbooks. Could research

workbooks provide me with the evidence of student learning for which I have been searching my entire teaching career? This research study implemented research workbooks as an assessment tool, examining them for evidence of increasing mastery of the artistic process as described by the Colorado Academic Standards for the Visual Arts (VA CAS) for elementary students.

I aimed to determine if research workbooks provided an authentic assessment of not only students' artistic growth, but also of my artistic practice. Developing an authentic art assessment is important because a quality "assessment program enables the art educator to diagnose student strengths and weaknesses early and on a regular basis, to monitor student progress, [and] to improve and adapt instructional methods" (Beattie, 1997, p. 2). When reviewing students' research workbooks and my personal research workbook, I sought evidence of observations, envisions, reflections, inventions, discoveries, creations, and personal connections (Colorado Department of Education, *Visual Arts 2020 Colorado Academic Standards*). In my opinion, the process of making art is as important as the product. I see assessment of students' creative processes as an evaluation of my own teacher effectiveness. Determining what students have or have not learned is the first step to improving my instruction and as a result, increasing student achievement. Similarly, using self-assessment to identify strengths and areas where I need to improve, is also the first step to improving my artistic practice and as a result, growing as an artist.

In addition to my own desire to improve my teaching, compliance with expectations for art educators in Colorado requires me to assess my students' proficiency as described by the VA CAS and to use data to drive instruction. I have found few

examples on how to effectively identify and evaluate the data that will underlie instruction on artistic process. According to Goodwin (2015), “there is a need to identify ways that can help all art teachers use assessment to become an ally of instruction and learning” (p. 9). Implementation of the research workbook as an assessment tool may provide other art teachers with an effective model of assessment. I chose to implement research workbooks because “the model promotes metacognition; it incorporates ‘investigations’ or activities that call attention to the kinds of thinking and learning that emerge through making art” (Marshall & D'Adamo, 2011, p. 12). My expectation was for students to produce both written and visual entries in their research workbooks. One potential benefit of this research was that my fourth-grade students would take ownership of their learning as they used their research workbooks to pursue what interests them, reflect, and self-assess. This study looked for evidence of students’ pursuing their own ideas that may have not been presented in class. Learning was structured to help students develop their ideas and record them in their research workbooks. A rubric that identifies criteria according to the VA CAS was used to assess the research workbooks with the purpose of students developing a sense of agency and individuality. Based on students’ enthusiasm for last year’s sketchbooks, which were just papers stapled together, my assumption was that students would enjoy using their research workbooks. I assumed students would take great pride in their hardbound, sleek black research workbooks and that the high quality of the research workbooks alone would elevate their work to a new level.

I also chose to complete a research workbook myself as a model for my students, as a vehicle for understanding a student’s process, and as a method of self-assessment. I

am a firm believer that I should practice what I teach and if I want my students to become lifelong learners, then I need to exemplify what a life dedicated to learning looks like. My teaching philosophy agrees whole-heartedly with a quote attributed to William Butler Yeats: “Education is not the filling of a pail, but the lighting of a fire” (Moore, 2010, para. 1). I want to ignite within my students a passion for art and learning by sharing my own love of art and learning.

If the research workbooks proved to be an effective assessment model, I planned to present the workbooks to my principal as an alternative way to evaluate my performance. While arts education may be marginalized by other disciplines when school leaders instruct arts educators to set professional goals outside of their content areas (Eisner, 2003; Sabol, 2013), I remain hopeful. If we help others see how the arts positively impact student learning, we can shape the future of education and most importantly, the future of our students.

Background of Specific Context

My research took place at a charter school which was founded by teachers in Greeley-Evans, Colorado. The charter school consists of two buildings, one an elementary school and the other a combined middle and high school. I teach at the elementary school, which serves 446 students, ranging from kindergarten to fifth grade. The elementary school population is diverse with a mix of immigrants, refugees, and natural born citizens.

Upon approval of my IRB proposal, I recruited participants for this study from a single class consisting of 26 students in fourth grade (see Appendix A). This class met every three school days for 50 minutes in the morning. Prior to this study, as part of my

normal classroom practice, I instructed students on using their research workbooks for answering questions, brainstorming ideas, drawing concept maps, creating art, conducting research, making observations and writing reflections. Students completed two units, one on metacognition and one on the history of the school's town.

Furthermore, a majority of my students were in my class the school year before and had already grown accustomed to using a sketchbook. Thus, they adjusted quickly to using a research workbook. Students returned assigned consent and assent forms in order to participate in this study.

Research Questions

As a teacher, I know that it is important to assess my students in order to identify and address their diverse learning needs. Moreover, I need to be able to communicate with all stakeholders what my students are learning. My research questions are "Using the elementary VA CAS as a framework, is the research workbook a meaningful way to assess the artistic processes of my students?" and "Is a research workbook using the VA CAS as a framework an effective assessment tool of my own artistic practice?" These research questions were informed by the following further questions:

- How do I make assessment meaningful to students, parents, evaluators, and teachers?
- How do I know if students are learning?
- What is the value of the research workbook?
- Does the research workbook provide evidence of meaning making, personal connections and process?
- How can I assess process instead of products?
- How can I transform my assessment practice to be aligned with the new VA CAS?

- Does seeing examples of research workbooks help students?
- What happens when I implement a research workbook in my studio and teaching practices?
- Do the VA CAS apply to my art and how?
- Does what I am doing as an artist and applying the standards to my work influence my teaching?

For my own research workbook, I explored the same questions as my students but on a personal and adult level. My research workbook served as a model for students on how to identify an area of personal interest, develop generative questions, and pursue a theme in multiple ways. I explored human relationships to the wilderness as my area of personal interest. I asked the following questions:

- How do we enjoy our national parks and preserve them for future generations?
- What is the balance?
- How are humans negatively impacting the wilderness?
- What role does art play in re-envisioning the contemporary way we experience nature?

In response, I created a body of art in different mediums and forms. Examining the dichotomies between the human desire to preserve the wilderness and to enjoy it, I created merit badges for following the “Leave No Trace” principles. I also created demerit badges, marking how we fail to protect the places we intend to preserve.

Corresponding to these demerit badges were maps that illustrate the topography of the landscape and the human impact on the natural world. My installation work and paintings portrayed the natural landscape hidden behind layers of human activity.

Definition of Terms

Assessment means to determine what students are learning or not learning. Donna Goodwin suggests that assessment occurs when a teacher sits side by side with the students and sees what is going on (personal communication, June 27, 2019; Merriam-Webster, 2020, online). To aid assessment, this study involved the implementation of one-point rubrics. A *one-point rubric* “only describes the criteria for proficiency; it does not attempt to list all the ways a student could fall short, nor does it specify how a student could exceed expectations” (Gonzalez, 2014, “Single-point Rubrics,” para. 1). This study differentiated a sketchbook from a research workbook. Traditionally, a sketchbook is for sketching, writing ideas, and planning artwork. While a research workbook may also be used for the same purposes as a sketchbook, a *research workbook* has the added purposes of making thinking visible as students conduct research for their art and make connections among all the art projects. As Julia Marshall says, “they are artworks in themselves” (2019, p. 84).

CHAPTER II

REVIEW OF LITERATURE

This study asked if research workbooks using the VA CAS as a framework are an effective assessment tool. This review of the literature includes the role of assessment in art education, an examination of the literature on assessment models, and an exploration of the influence of teachers' research workbooks on their teaching practices.

The Role of Assessment

Beattie's *Assessment in Art Education: Art Education in Practice Series* examines the role assessment plays within instruction. Using the metaphor of a weaving, Beattie (1997) beautifully describes the ideal assessment:

At its best, classroom assessment blends seamlessly with teaching for the purpose of learning. It neither disrupts nor disjoins the instructional process. If likened to a weaving, then, knowledge of world and self is the warp through which various fibers of teaching and assessing, the weft, are tightly woven. The result is learning--a work of art with rich colors, textures, and patterns unique to each student. The teacher structures the weaving process, views the work as it evolves, collaborates in the final design, and assesses the final piece. (p. 83)

Ultimately, the goal is to integrate instruction with assessment so that they support one another. In a more recent study, Goodwin (2015) discusses how assessment contributes to instruction. Goodwin notes that a "quality arts assessment is responsive to a child's needs and encourages growth. . . in a way that reveals not just the qualities of a work of art, but of the artist too" (p. 385). Thus assessment should aid the student's learning. In addition, assessment should not only be about the end-product but also the process, revealing how the artist thinks and works. For Goodwin, "the end result in terms of the final product is

not as important as the learning and the connections that were made while the artist was on the journey” (p.362). Assessment plays a very important role within the classroom not only in informing instruction but also in helping students reach their full potential.

Assessment also plays an important role within teacher evaluations. The current trend in education is to tie teacher evaluations to student learning (Sabol, 2013), which poses challenges to art teachers. Goodwin observes that “art teachers are challenged with balancing the need to meet arts learning objectives while also supporting open-ended, creative production of artwork” (2015, p. 6). Art assessments must show what students learn without impeding students’ abilities to make artistic choices. Another challenge teachers face is that students learn at different rates. Eisner (2002) speaks of how “seeds that are planted do not come to fruition until they are watered. In education, the water the seeds need may not be provided until after the assessment” (p. 71). However, these challenges do not mean we should not try to assess student learning because “without some form of assessment and evaluation, the teacher cannot know what the consequences of teaching have been” (p. 179). Obviously, in order to determine teacher effectiveness, “we need models of assessment practice that meet the dilemma of accounting for specific learning while preserving the unique creative nature of art” (Goodwin, 2015, p. 9).

Art assessments not only help evaluate teacher performance but also the value of an art program. By providing evidence of what students learn, assessments make known the positive impact an art education has on students. The results of assessments can be shared with others in an effort to advocate for the arts. This is important because in today’s society of educational reform “we demonstrate accountability on the basis of our students’ test scores, and what students are tested on is what is emphasized in our

schools,” and as a result, art has been marginalized by other subjects (Eisner, 2003, p. 340-341). Unfortunately, in this age of accountability, arts educators are constantly having to prove why an art education matters. Sabol (2013) notes:

Arts educators are tasked with presenting arguments that can justify the existence of arts education in our schools. Moreover, they must provide convincing evidence that the outcomes of arts education are compatible with broader national educational goals and objectives and are supporting learning in other disciplines in the curriculum. (p. 34)

While there is pressure to demonstrate how an arts education supports other disciplines, Eisner (2002) declares that what our education system really needs is “a climate in schools that does not assign to the arts an inferior status vis-à-vis other subjects” (p. 172). According to Eisner, “in justifying its case, art education should give pride of place to what is distinctive about the arts” (p. 42). Thus, art assessments should not focus on how students are applying what they learn in art to other subjects but instead on what they are learning that is unique to the subject of art. Eisner identifies three reasons why an arts education is valuable on its own. First, the arts “provide a means through which meanings that are ineffable can be expressed” (p. 343). Second, they enable “individuals to use and develop their minds in distinctive ways through learning to think within a medium whose unique and special messages are conveyed in sound, sight, or movement” (p. 343). Lastly, they “make possible a certain quality of experience we call *aesthetic*” (p. 343, emphasis in original). In order to advocate for the arts, teachers need to implement assessments that result in showing the unique contributions that an art education makes.

Models of Assessment

Research workbooks are an arts-based research model that has potential to make the benefits of an art education visible. According to Marshall and D’Adamo (2011), this

model “stresses artistic thinking, creative process, conceptual skills, and research over technical artmaking skills” (p. 12). Thus, the focus of instruction and consequently, the focus of assessment is on process not on craftsmanship. Using writing, mind maps, and pictures, students document their research and artmaking processes. As a result, student thinking becomes visible through “two modalities, visual and verbal, and these two modes weave together in an iterative process, each propelling and building upon the other” (p. 14). Even though this study takes place in a high school setting in California, the activities the students engage in closely align to the VA CAS: observe and learn to comprehend, envision and critique to reflect, invent and discover to create, and relate and connect to transfer (Colorado Department of Education [CDE], *Visual Arts 2020 Colorado Academic Standards*, p. 7). For example, in this model, “student artist/researchers use their research workbooks to explore, experiment, and play with ideas; look for themes that connect these ideas; and record and examine historical/cultural influences that inform their artwork” (Marshall & D’Adamo, 2011, p. 14). With teacher-directed activities and scaffolding, this model can also be implemented at the elementary level. In another study, Marshall (2016) describes how third graders on a field trip to Muir Woods National Monument used research workbooks to record their observations and experiences. For example, they made concept maps to diagram the phenomena they observed, the associations they made, and the ideas they generated. This lead me to believe that research workbooks have great potential to provide evidence of elementary students’ proficiency as described by the VA CAS.

Interestingly, though, because students learn at different rates, Eisner (2002) is wary of standards in the arts and states that “the image of applying uniform standards to assess

their learning at the same point in time conjures up an assembly-line model of schooling” (p. 166). According to Eisner, standards distract us from developing “assessment practices that address learning that matters in the arts” (p. 172). Nevertheless, Eisner believes:

Standards can make a contribution to arts education if they do the following: if they represent in a meaningful and non-rigid way the values we embrace and the general goals we seek to attain, if they provide those who plan curricula with an opportunity to discuss and debate what is considered important to teach and learn, and if they suggest criteria that can be used to make judgments about our effectiveness. (p. 173)

The VA CAS describe characteristics of arts learning while providing the teacher flexibility in implementation. Instead of being rigid, “the standards, grade level expectation and evidence outcomes are stated broadly so that they can be specifically applicable to many different schools, classrooms and learning environments” (CDE, *Visual Arts 2020 Colorado Academic Standards*, p. 4). Therefore, I think Eisner would probably agree that the VA CAS are a useful framework for guiding curriculum and suggesting assessment criteria. This is why in the current inquiry students’ research workbooks were assessed using a one-point rubric with the VA CAS listed as the performance levels.

In addition to flexible criteria, art assessments also need procedures that allow for a wide-range of responses and possibilities. Eisner (2002) declares:

Assessment procedures need to be sufficiently open-ended and flexible to allow students to reveal what they have learned. Thus, interviews with students about their experience in an art class and opportunities for them to talk about their own work in relation to what they learned from doing it are altogether appropriate. In fact such opportunities are likely to reveal outcomes of which the teacher is unaware. (p. 186)

The practice of conducting interviews has many advantages not only as an assessment procedure but also as a data collection procedure. When informal interviews are used as a

research method, Nolte (2013), like Eisner, stated that “further unexpected but useful information may be volunteered” (p. 56). Moreover, Nolte noted that “unstructured interviews can be easily tailored to the needs of the interviewee” (p. 56). When discussing the use of interviews as a teaching practice, Shipe (2016) claimed that talking to three students per class about their art gave her “an opportunity to critically compare [her] instructional methods with student outcomes” (p. 33). Another benefit that Shipe said emerged for her is that “paying close attention to my students’ artwork allowed me to appreciate the unique personal qualities it revealed” (p. 33). Clearly, interviews of students about their artistic processes may provide information and other unexpected findings that assessment of their research workbooks alone may not provide.

Student self-assessments also have potential to reveal information that neither interviews nor teacher conducted assessments provide. Assessments should not be conducted solely by the teacher. Instead, students should be involved in the assessment process. Students need to be taught how to assess their own work “because when they are out of school there will be no teacher around to do it for them” (Eisner, 2002, p. 195). Thus, being able to assess one’s own work is a life skill. Teaching students how to self-assess and talk about their art gives students a voice in the assessment process and empowers them to take ownership of their learning. Perhaps this is why student self-assessments and interviews have long been recognized as effective assessment practices. Beattie (1997) suggested that “journal entries can be reviewed and assessed using different techniques such as: checklists (check off if entries are there); rating scales (degree of quality of entries); teacher, peer, parent, other interview; and student self-assessments (about quality and progress)” (p. 23). Even though Beattie does not use the

term research workbook, the same assessments techniques can apply to research workbooks today. Students can and should be encouraged to complete self-assessments of their research workbooks using a one-point rubric with the VA CAS written in a student-friendly language listed as the performance levels.

Evidently, in order to gain a deep understanding of students and the impact we are making on their learning, art educators need to do more than just score student work with a rubric. Art educators should also engage the students in the assessment process through interviews and self-assessments. That is why, acting as teacher and researcher, I looked for evidence of students' proficiency as described by the VA CAS by interviewing students and reviewing their self-assessments in addition to scoring their research workbooks with a rubric. When conducting research, one should strive to achieve structural corroboration, “a gathering of many pieces of evidence that enable one to create a compelling whole” (Barone & Eisner, 2012, p. 162). This is also true when conducting assessments. Educators must seek many pieces of data in order to capture a picture of the whole child.

The Impact of Studio Practice on Teaching Practice

While an effective model of assessment enables teachers to know their students more fully, if not implemented correctly, assessment can mistakenly lead students to perform out of compliance instead of out of a love for art. For example, Goodwin (2015) found that a teacher who “assessed students based on a predetermined norm” resulted in students creating “artwork that looked similar in that it was the same size, of the same material, was made with the same process, at the same time, and all based on a natural phenomenon that she approved” (p. 376). Obviously, one way to prevent students from

creating art just to please or satisfy the teacher is to keep assessment criteria and procedures open-ended. However, to go one step further, teachers can also bring their own studio work into their classrooms and model for the students what it means to authentically engage in artmaking and self-assessment practices.

In 2004, Nicole Porter, a high school art teacher, did just that when she set up her studio inside her classroom. She wrote “I want for my students what I have with my own art—an enjoyment and satisfaction that comes with creation for myself, not for some arbitrary judge” (p. 107). By bringing her own artmaking into the classroom, Porter not only modeled how artists make art for themselves but also how artists are lifelong learners. When explaining her motivation for setting up her studio in the classroom, Porter stated “I wanted them to see themselves as artists. Not as art students, but as artists learning, just like me” (p. 107). This is ultimately what I am hoping to achieve by keeping a research workbook alongside my students. I want to model lifelong learning and inspire them. According to Porter, “teachers perceived to be active in their field are seen as more competent and more motivational” (p. 111). Furthermore, “it seems that we need to model lifelong learning if we really value it” (p. 111). Sharing our studio practices with students has potential to inspire them and foster a love of art and learning.

Creating artwork whether we share it with our students or not can improve our teaching practices by helping us to keep our own passion for art alive (Ortiz, 2013).

Stressing the importance of maintaining a studio practice, Ortiz tells future art educators:

Strengthening one’s teaching practice can come from building lessons as well as creating personal artworks. Art teachers should not forget the passion that brought them into the field of art education. They should view their artist and teacher identities with equal importance. (p. 242)

By utilizing a research workbook within my studio practice and self-assessing it, I fulfilled my own desires to grow and improve as an artist. At the same time, I also deepened my understanding of the challenges and struggles my students face. Lastly, by sharing my research workbook with my students, I demystified the artmaking process and modeled the very artistic thinking and behaviors I was hoping to find through implementing research workbooks as an assessment tool.

CHAPTER III

METHODS

A/r/tography and Action Research Design

In A/r/tography, studio practices combine with teaching practices to creatively explore problems facing education (Sullivan, 2010). A/r/tography is an approach to inquiry that “makes use of the multiple roles and contiguous relationships of artists, researchers, and teachers as frames of reference through which art practice is explored as a site for inquiry” (Sullivan, 2010, p. 58). The intention of a/r/tographers is “the improvement of practice, understanding practice from a different perspective, and/or the use of their practice to influence the experiences of others” (Irwin, 2013, p. 105). Likewise, “action research usually involves the study of and enhancement of one's own practice” (Buffington & Wilson McKay, 2013, p. 38). Since this study asks if research workbooks are an effective means to assess student artistic growth and my own artistic process, I approached action research as an a/r/tographer.

Using this hybrid approach of action research and a/r/tography, I implemented research workbooks as a new strategy within both my teaching and studio practices. I examined how the practice of keeping a research workbook influenced my teaching practice and how my research workbook reflected my teaching practice. Throughout this study, I adjusted both my teaching and studio practices in response to the evidence or lack of evidence the research workbooks provided of my students’ proficiency as well as my own artistic skill as described by the VA CAS. Ultimately, my research shaped me

and I it. As Springgay (2011) observed, “a/r/tographical research as living inquiry constructs the very materiality it attempts to represent” (p. 159).

Methods and Procedures

This a/r/tographical study took place over the course of 19 weeks. I collected data from the students’ research workbooks, informal interviews, artwork and self-assessments. I also collected data from my own research workbook, artwork, written notes and reflections, lesson plans, self-assessments, evaluations conducted by my evaluator, and a visitor sign in book to my exhibition *Happy Trails*. To support system data collection, I developed two one-point rubrics. One of the rubrics has the VA CAS listed as the performance levels, and I, acting as a/r/tographer, used it to assess the students’ research workbooks for evidence of their proficiency with the standards. This occurred on two separate occasions: at the completion of each of the two six-week long units of instruction. The assessments occurred outside of instructional time. I also used this rubric to complete a self-assessment of my own research workbook on two separate occasions at the same time that I assessed the students’ research workbooks. The second rubric has the VA CAS written in a student-friendly language listed as the performance levels, and the students used it to self-assess their research workbooks.

The students completed the self-assessments during normal art class time as part of a normal assessment routine but only data from the participants were used. Each student was allowed to take as much time as needed to complete the self-assessment. This is why I chose to add two to three weeks of flex time at the end of each unit. These extra weeks allowed students to self-assess, finish any unfinished work and pursue ideas of their own.

Table 1: Research Workbook Rubric

Areas that Need Work <i>No, you don't have it yet because...</i>	Criteria <i>Standards for this Performance</i>	Evidence <i>Yes, you have it because...</i>
	Hypothesize the steps an artist may have used to complete a work of visual art or design.	
	Suggest alternative ways an artist could have communicated an idea.	
	Recognize how the human experience is expressed in diverse ways.	
	Respond to works of art using inference and empathy.	
	Discuss and define how to determine appropriate criteria for a given work of art	
	Discuss and form an opinion about the social and personal value of art.	
	Research from multiple sources to inspire works of visual art and design.	
	Investigate the ways alternative ideas are generated.	
	Generate multiple ideas in order to select the idea that best communicates intended meaning.	
	Communicate a plan for completing works of visual art and design.	
	Analyze through collaborative discussion how personal works of art can be refined to effectively communicate.	
	Justify how choice of media communicates personal intent.	
	Problem-solve and persist to determine the outcome of a final product.	
	Prepare works of visual art and design for presentation.	
	Identify and describe how visual art and design communicate meaning between any subject, discipline, event or issue.	
	Compare works of art between diverse cultures to understand how the role of art is perceived within a given community.	
	Compare how artists work in different cultures and at different times in history.	

Table 2: Self-assessment Rubric

Areas that Need Work <i>No, I don't have it yet because...</i>	Criteria <i>Standards for this Performance</i>	Evidence <i>Yes, I have it because...</i>
	I can explain the steps an artist may have used to complete an artwork.	
	I can explain different ways for an artist to express an idea.	
	I can look for different perspectives expressed by others in artwork.	
	I can respond to artwork with empathy.	
	I can determine criteria for evaluating artwork.	
	I can discuss and form opinions about artwork.	
	I can research from multiple sources to gather ideas.	
	I can investigate the ways different ideas are generated.	
	I can generate many ideas and pick the best one for an artwork.	
	I can make a plan for creating an artwork.	
	I can learn ways to improve my artwork by talking about it with my classmates.	
	I can explain what materials I chose and how they help express my ideas.	
	I can solve problems and persist until I finish my artwork.	
	I can add finishing touches to make my artwork ready for presentation.	
	I can make connections between art and other things I am learning.	
	I can compare artwork from different cultures and understand how people from different cultures see art.	
	I can compare how artists work in different cultures and at different times in history.	

During the first six-week long unit, students conducted inquiry within their art practices to address the question “Who am I?” Students used their research workbooks to explore their identities. The investigation launched with a brief exposure to the contemporary artist Shantell Martin as her work pertains to identity. This lesson lasted for a single class period for each fourth grade class starting on October 18, 2019 and ending on October 22, 2019. After watching part of the video *No one else you could be: Shantell Martin* (TEDxTeen, 2017), students discussed the following essential questions: What is the purpose of art? What do artists do when they make mistakes? What are problems artists encounter during artmaking? How do artists solve problems? How do artists persist until their artwork is finished? How do artists know when their artwork is finished? How do artists create artwork that represents who they are? In addition to the video, I shared about my experiences of attending an artist talk given by Shantell Martin, viewing Martin’s immersive art installation at the Denver Art Museum, and even discovering more of Martin’s artwork on the streets of Denver. Students viewed pages from my research workbook of my notes from the artist talk, reflection on the art exhibit, and artwork created in response to the question “Who am I?”. Then, students created a drawing in their research workbooks that represented who they are.

This lesson was directly tied to my evaluation. At the beginning of the school year, I wrote two Measures of Student Learning (MSLs), which contributed to the evaluation of my effectiveness as a teacher. My principal required that every specials teacher (art, music, physical education, and technology) write at least one of their MSLs on increasing student performance on standardized testing in either ELA or mathematics. Since the implementation of the research workbooks supported literacy, I chose to write a

MSL for ELA. This MSL read as follows: I will provide opportunities and support for students to practice their writing skills through writing entries in their research workbooks so that 80% of students in a fourth grade class will be in the 50th percentile on their Measure of Academic Progress (MAP) test for writing by May. MAP is “a computer adaptive test” of students’ performance in “reading, language usage, and math” that our students take a few times a year (Fleming, 2016, “What is MAP and what does it measure?,” para. 1). My principal allowed the specials teachers to write the second MSL about their specific content area that they teach. For my second MSL, I wrote: I will provide opportunities and support for students to generate questions that lead to further inquiry and self-directed learning so that 80% of the students in a fourth grade class will be proficient on 10 to 13 standards on the art rubric by May. Since the lesson that launched the *Who am I?* unit supported both of my MSLs, I invited my evaluator to conduct my first formal observation of the school year during it. Prior to the observation, I submitted a lesson plan to her and conferenced with her (see Appendix B). While formally observing me, my evaluator participated in the lesson by drawing on her I-pad alongside the students. She told me during our post-observation conference that she was sad when art ended and she had to stop drawing. Some students had the same response and chose to continue their drawings the following class.

Table 3: Timeline of Activities Throughout *Who am I?* unit

Month	Question and teacher/student activity	Standard, grade level expectation, and evidence outcome
October	Who am I? Launched investigation with Shantell Martin. (First formal observation)	Standard: 3. Invent and Discover to Create 2. Utilize media in traditional and inventive ways to communicate personal intent. b. Problem-solve and persist to determine the outcome of a final product.
	What are 10 ideas I have for writing or art in my research workbook? Student choice	Standard: 3. Invent and Discover to Create 1. Investigate ideas of personal interest to plan and create works of visual art and design. a. Generate multiple ideas in order to select the idea that best communicates intended meaning.

Table 3., continued

Month	Question and teacher/student activity	Standard, grade level expectation, and evidence outcome
	What do I look like? Discussion of Frida Kahlo, Vincent Van Gogh, and Andy Warhol. Guided practice drawing a portrait.	Standard: 1. Observe and Learn to Comprehend 2. Respond to an artist's point of view being mindful of historical, contemporary and cultural context. b. Respond to works of art using inference and empathy.
	What am I like? Viewed Robert Arneson's <i>Portrait of the Artist as a Clever Old Dog</i> (1981). Concept mapped Arneson's artwork and an idea for a metaphorical self-portrait.	Standard: 1. Observe and Learn to Comprehend 2. Respond to an artist's point of view being mindful of historical, contemporary and cultural context. a. Recognize how the human experience is expressed in diverse ways.
November	What objects do I own, use and treasure? Viewed examples of concept maps of personal objects. Drew concept maps of personal objects and wrote why they are important.	Standard: 3. Invent and Discover to Create 1. Investigate ideas of personal interest to plan and create works of visual art and design. a. Generate multiple ideas in order to select the idea that best communicates intended meaning.
	What idea do I want to create for my final "portrait" of me? Picked the best idea to communicate who they are. Chose drawing, self-portrait, metaphorical self-portrait, personal object, or an idea not presented in class. Developed a plan, identified what media they intended to use and explained how the media helped express their ideas.	Standard: 3. Invent and Discover to Create 1. Investigate ideas of personal interest to plan and create works of visual art and design. b. Communicate a plan for completing works of visual art and design. 2. Utilize media in traditional and inventive ways to communicate personal intent. a. Justify how choice of media communicates personal intent.
	What is going to be a challenge when I create my final "portrait" and how can I overcome it? Created final artwork.	Standard: 3. Invent and Discover to Create 2. Utilize media in traditional and inventive ways to communicate personal intent. b. Problem-solve and persist to determine the outcome of a final product.
	How does my piece connect to the theme of "Who I am"? Wrote artist statements.	Standard: 3. Invent and Discover to Create 2. Utilize media in traditional and inventive ways to communicate personal intent. c. Prepare works of visual art and design for presentation.
	What do I hope my viewers will take away from this piece in celebrating unity and acceptance? Finished artist statements and continued final portraits	Standard: 3. Invent and Discover to Create 2. Utilize media in traditional and inventive ways to communicate personal intent. b. Problem-solve and persist to determine the outcome of a final product. c. Prepare works of visual art and design for presentation.
December	Why is art important? Has art made a difference for me in my life? Why/How? Continued final portraits.	Standard: 3. Invent and Discover to Create 2. Utilize media in traditional and inventive ways to communicate personal intent. b. Problem-solve and persist to determine the outcome of a final product. c. Prepare works of visual art and design for presentation.

For the second six-week unit, students pursued a new inquiry path for the question "What is my community?" To launch the investigation, I shared with students a map *Northern Colorado* that I had sewn of my communities (see Fig. 1). This lesson lasted for a single class period for each fourth grade class starting on January 7, 2020 and ending on January 10, 2020. In addition to showing the topography of the landscape, my map has a QR code linked to a playlist of recordings I had made at the locations featured by

photographs (see Fig. 2). Students listened to the playlist of sounds and discussed what they noticed. Viewing multiple maps of Evans, we discussed the following essential questions: How does the physical environment affect human activity? How does human activity affect the environment? How have places in Colorado changed and developed over time due to human activity? Which geographic tools are best to locate information about a place? How can you illustrate, using geographic tools, how places in Colorado have changed and developed over time due to human activity? Lastly, students drew a map of their communities. As this lesson also supported both of my MSLs, I invited my evaluator to formally observe me again during this class. Prior to the observation, I conferenced with my evaluator and shared the lesson plan (see Appendix C).



Figure 1: Amy Felder, *Northern Colorado*, 2019. Paint and thread on fabric, 32x27inches

Figure 2: Amy Felder, *QR Code*, 2019Table 4: Timeline of Activities throughout *What is my community?* Unit

Month	Question and teacher/student activity	Standard, grade level expectation, and evidence outcome
January	What is my community? Launched investigation with an exploration of maps and map making. (Second formal observation)	Standard: 2. Envision and Critique to Reflect 2. Synthesize researched and visual information to imagine, inform and plan possible next steps in personal artmaking. a. Research from multiple sources to inspire works of visual art and design.
	What does my community look like? Toured school, made observation drawings, and wrote descriptions.	Standard: 2. Envision and Critique to Reflect 2. Synthesize researched and visual information to imagine, inform and plan possible next steps in personal artmaking. b. Investigate the ways alternative ideas are generated.
	What is my community like? Discussed Adam Dant's <i>Copenhagen</i> and <i>New York Tawk</i> . Concept mapped a metaphor to represent their communities.	Standard: 1. Observe and Learn to Comprehend 2. Respond to an artist's point of view being mindful of historical, contemporary and cultural context. a. Recognize how the human experience is expressed in diverse ways.
	Who do I know from my community? Viewed Diego Rivera's <i>Flower Seller</i> and Jacob Lawrence's <i>Community (study for mural, Jamaica, NY)</i> . Answered "What am I? Who am I? What makes me who I am?" in a concept map (Marshall, 2019, p. 113).	Standard: 3. Invent and Discover to Create 1. Investigate ideas of personal interest to plan and create works of visual art and design. a. Generate multiple ideas in order to select the idea that best communicates intended meaning.
	What idea do I want to create for my final artwork of my community? Picked the best idea for an artwork of their community. Chose map, observation drawing, metaphoric map, portrait, or an idea not presented in class. Developed a plan, identified what media they intended to use and explained how the media helped express their ideas. Chose criteria for evaluating final artwork and explained their choices.	Standard: 2. Envision and Critique to Reflect 1. Interpret and evaluate personal work and the work of others with informed criteria. a. Discuss and define how to determine appropriate criteria for a given work of art. Standard: 3. Invent and Discover to Create 1. Investigate ideas of personal interest to plan and create works of visual art and design. b. Communicate a plan for completing works of visual art and design. 2. Utilize media in traditional and inventive ways to communicate personal intent. a. Justify how choice of media communicates personal intent
	How does my art connect to the theme community? Created artwork.	Standard: 4. Relate and Connect to Transfer 1. Investigate and discuss how diverse communities address issues relevant to their culture, place and times. a. Identify and describe how visual art and design communicate meaning between any subject, discipline, event or issue.
	What was a problem I had when creating my art and how did I solve it? Read my artist statement for <i>Happy Trails</i> , an exhibition I had in Mariani Gallery at the University of Northern Colorado. Wrote artist statements.	Standard: 3. Invent and Discover to Create 2. Utilize media in traditional and inventive ways to communicate personal intent. b. Problem-solve and persist to determine the outcome of a final product. c. Prepare works of visual art and design for presentation.
February	How does Do-Ho Suh's artwork connect to the theme community? Discussed Do-Ho Suh's <i>Seoul Home/L.A. Home/New York Home</i> . Finished writing artist statements and continued artwork.	Standard: 4. Relate and Connect to Transfer 1. Investigate and discuss how diverse communities address issues relevant to their culture, place and times. b. Compare works of art between diverse cultures to understand how the role of art is perceived within a given community.

Table 4., continued

Month	Question and teacher/student activity	Standard, grade level expectation, and evidence outcome
	How can I improve my artwork? Participated in formal art critique. Invited school community to <i>Happy Trails</i> via a morning announcement, staff meeting announcement, school newsletter, Google calendar invite, flyers during parent teacher conferences, and school board meeting memo.	Standard: 3. Invent and Discover to Create 1. Investigate ideas of personal interest to plan and create works of visual art and design. c. Analyze through collaborative discussion how personal works of art can be refined to effectively communicate.
	How does Akunyili Crosby's artwork connect to the theme community? Discussed Njideka Akunyili Crosby " <i>The Beautiful Ones</i> " Series #4. Finished art critique and continued artwork.	Standard: 4. Relate and Connect to Transfer 1. Investigate and discuss how diverse communities address issues relevant to their culture, place and times. b. Compare works of art between diverse cultures to understand how the role of art is perceived within a given community.
	What is alike and different between the artwork? Compared Do-Ho Suh and Njideka Akunyili Crosby's art. Assessed research workbooks.	Standard: 4. Relate and Connect to Transfer 1. Investigate and discuss how diverse communities address issues relevant to their culture, place and times. b. Compare works of art between diverse cultures to understand how the role of art is perceived within a given community.
	What is alike and different between how Do-Ho Suh and Akunyili Crosby work? Compared how Do-Ho Suh and Njideka Akunyili Crosby work. Finished assessing research workbooks and artwork.	Standard: 4. Relate and Connect to Transfer 1. Investigate and discuss how diverse communities address issues relevant to their culture, place and times. c. Compare how artists work in different cultures and at different times in history.
March	How do people from different cultures see art? Pick artwork for art show and type artist statement.	Standard: 4. Relate and Connect to Transfer 1. Investigate and discuss how diverse communities address issues relevant to their culture, place and times. b. Compare works of art between diverse cultures to understand how the role of art is perceived within a given community.

Originally, this study was going to include a third six-week unit, during which students conducted inquiry in response to the question "What is my world?" This unit was not fully taught due to a suspension of in-person school in an effort to prevent the spread of the coronavirus disease. Before we went on an extended break from brick and mortar school, I launched students' investigations with a brief exposure to the artist Laleh Mehran and her *W3FI* works. I shared with students what I learned about Mehran from attending her artist talk at the Colorado Art Education Association (CAEA) 2019 Fall Conference Art from the Heart. Since many of my students are refugees and immigrants like Mehran, I assumed they would connect to her life story and her struggle with cultural identity. After viewing part of the video *Compilation of the W3FI Exhibitions* and the *W3FI Manifesto*, we discussed the digital world and digital safety (CO-LAB, 2014). We

discussed the following essential questions: Why is it important that we are careful about what we say and do online? What information about you is OK to share online? How can you be positive and have fun while playing online games, and help others do the same? How do you keep online friendships safe? How do you chat safely with people you meet online? How can you protect your privacy when you are online? Then students learned about Sam Peck and David Modler's *Draw and Play Here Project* and what it means to be active in the art world. Inspired by Peck and Modler's CAEA conference workshop Sketchbook and Visual Journal Speed Date, I had my students pair and share in a similar way. Students enjoyed having the opportunity to share their work with each other. We discussed the following essential questions: How and why are we connected? What did you learn from talking to your partner? How does drawing with others make community and foster dialogue? How did it feel? What is your biggest take away? We also were able to complete the activities for the "What does my world look like?" lesson listed in the following table.

Table 5: Timeline of Activities throughout *What is my world?* Unit

Month	Question and teacher/student activity	Standard, grade level expectation, and evidence outcome
March	What is my world? Launched investigation with Laleh Mehran, Sam Peck and David Modler. Opened <i>Happy Trails</i> .	Standard: 4. Relate and Connect to Transfer 1. Investigate and discuss how diverse communities address issues relevant to their culture, place and times. a. Identify and describe how visual art and design communicate meaning between any subject, discipline, event or issue.
	What does my world look like? Discussed Shepard Fairey's <i>'We the People' Campaign</i> (2017), JR's billboard of a boy peering over the Mexican border (2017), and Christoph Buchel's <i>Barca Nostra</i> (2019). Held reception for <i>Happy Trails</i> .	Standard: 1. Observe and Learn to Comprehend 2. Respond to an artist's point of view being mindful of historical, contemporary and cultural context. a. Recognize how the human experience is expressed in diverse ways. b. Respond to works of art using inference and empathy.
	What is my world like? Beginning of suspension of in-person school. Planned to create a concept map of a metaphor for their worlds.	Standard: 2. Envision and Critique to Reflect 2. Synthesize researched and visual information to imagine, inform and plan possible next steps in personal artmaking. b. Investigate the ways alternative ideas are generated.
	Where do I fit into the world? Planned to brainstorm a "big" idea of something they care deeply about and explore their "big" idea from different vantage points.	Standard: 3. Invent and Discover to Create 1. Investigate ideas of personal interest to plan and create works of visual art and design. a. Generate multiple ideas in order to select the idea that best communicates intended meaning.

Table 5., continued

Month	Question and teacher/student activity	Standard, grade level expectation, and evidence outcome
April	<p>What did I learn about my topic?</p> <p>Planned to have students conduct research online in computer lab prior to art class, share my work in my research workbook regarding the negative effects of overcrowding of our national parks and my body of art related to my research and to continue student research by having them research artists and artworks in art library.</p>	<p>Standard: 2. Envision and Critique to Reflect</p> <p>2. Synthesize researched and visual information to imagine, inform and plan possible next steps in personal artmaking.</p> <p>a. Research from multiple sources to inspire works of visual art and design.</p> <p>Standard: 4. Relate and Connect to Transfer</p> <p>1. Investigate and discuss how diverse communities address issues relevant to their culture, place and times.</p> <p>b. Compare works of art between diverse cultures to understand how the role of art is perceived within a given community.</p> <p>c. Compare how artists work in different cultures and at different times in history.</p>
	<p>What idea do I want to create for my final artwork of my world?</p> <p>Planned to pick the best idea for an artwork of their world, develop a plan, identify what media they intended to use, explain how the media helped express their ideas, choose criteria for evaluating final artwork and explain their choices.</p>	<p>Standard: 2. Envision and Critique to Reflect</p> <p>1. Interpret and evaluate personal work and the work of others with informed criteria.</p> <p>a. Discuss and define how to determine appropriate criteria for a given work of art.</p> <p>Standard: 3. Invent and Discover to Create</p> <p>1. Investigate ideas of personal interest to plan and create works of visual art and design.</p> <p>b. Communicate a plan for completing works of visual art and design.</p> <p>2. Utilize media in traditional and inventive ways to communicate personal intent.</p> <p>a. Justify how choice of media communicates personal intent</p>
	<p>How does my art connect to the theme?</p> <p>Planned to create artwork.</p>	<p>Standard: 4. Relate and Connect to Transfer</p> <p>1. Investigate and discuss how diverse communities address issues relevant to their culture, place and times.</p> <p>a. Identify and describe how visual art and design communicate meaning between any subject, discipline, event or issue.</p>
	<p>What was a problem I had when creating my art and how did I solve it?</p> <p>Planned to write artist statements.</p>	<p>Standard: 3. Invent and Discover to Create</p> <p>2. Utilize media in traditional and inventive ways to communicate personal intent.</p> <p>b. Problem-solve and persist to determine the outcome of a final product.</p> <p>c. Prepare works of visual art and design for presentation.</p>
	<p>What is another way an artist could express the theme?</p> <p>Planned to self-assessed research workbooks.</p>	<p>Standard: 1. Observe and Learn to Comprehend</p> <p>1. Uncover how artistic intent can be enhanced through the use of the language of visual art and design.</p> <p>b. Suggest alternative ways an artist could have communicated an idea.</p>
	<p>What do I want to research next?</p> <p>Planned to finish self-assessing research workbooks and make plans for future research and artmaking.</p>	<p>Standard: 3. Invent and Discover to Create</p> <p>1. Investigate ideas of personal interest to plan and create works of visual art and design.</p> <p>b. Communicate a plan for completing works of visual art and design.</p>

Interview Procedures

The subjects were engaged in informal interviews during check-ins on two separate occasions: during or at the completion of the two six-week long units of instruction. Each interview was conducted by the teacher as researcher and occurred during normal art class time as part of a normal assessment routine. The intention was for all students to engage in these interviews but only use data from the participants. Even

though I tried to interview all students, I was unsuccessful due to limited time and ended up prioritizing the students who were participants. Each interview lasted between five to ten minutes.

During these interviews, students were encouraged to describe and explain their artistic processes. I began each conversation by telling the students that I am just checking in. I asked, “What you are working on and what are you excited about?” I allowed questions to develop in response to what the students said and in accordance with the direction of the conversation. In keeping with a/r/tography, “these interviews could be characterized as conversational interviews as the focus was intentionally broad and allowed for an emergence of ideas” (Irwin et al., 2008, p. 210). Data were in the form of written notes and reflections by the researcher.

Participants

My research took place at the elementary school in which I teach in Evans, Colorado under the pseudonym of Evans Elementary School. Serving 446 students, the school’s student population by race/ethnicity identification consists of 53% Hispanic/Latino, .2% American Indian or Alaska Native, 4% Black or African American, 7% Asian, 2% Native Hawaiian or Other Pacific Islander, 32% White, 2% two or more races and .2% undefined (Greeley-Evans School District 6, 2019). Additionally, 59% of students receive free and reduced lunch (J. Anderson, personal communication, October 15, 2019, 8:32 AM). Within the student body, eleven different first languages are represented, 35% of students receive English Language Development services, and eleven of these students are newcomers, meaning this is their first year in the United

States and they are non-English proficient (K. Leighton, personal communication, August 12, 2019).

According to the 2016-2019 School and District Performance Frameworks, our school out performed all other elementary schools in Weld County School District 6 in 2019. In fact, with a performance rating of 66.7%, our school is now among the top three performing charter schools in the area. This performance rating is determined by state standardized testing in ELA, mathematics, and science. In 2016, our school's performance rating was as low as 36.4%, which required our school to be on a priority improvement plan. Fortunately, our school has shown significant improvement and has no longer required an improvement plan for the past three years (Colorado Department of Education, 2016-2019).

The sample was derived from a fourth grade class of 26 students taught by the teacher as researcher. I chose fourth graders as the appropriate grade level for this research because they are at the appropriate age level for using a research workbook to record their ideas and reflect on their learning. Following a presentation during class regarding what the research is about and what it involves, students from this class were invited to participate in the research based on their own interest to do so. If students were interested in participating, they were asked to take the consent and assent forms home to discuss with their parents or guardians. Only nine students returned signed consent and assent forms. Participants were notified that their participation in the research would not affect their evaluation or grade for the class. Subjects were identified in the research using pseudonyms; their real names were not used. All fourth grade classes were included

in the six-week units and assessment procedures as it pertained to what they were learning during art class.

The age of participants ranged from nine to ten years old. Six were female and three were male. Three participants received English language development services and one of these students was a newcomer, meaning that this was the student's first year in the United States and the student was non-English proficient. One participant had an individualized education plan (IEP), meaning that this student received special education.

Table 6: Participants' Identification by Race/Ethnicity

Race/ethnicity	Caucasian	Hispanic	Asian	Islander	American Indian	Ethiopian
Number of participants	3	2	1	1	1	1

Data Collection

Assessment of Research Workbooks

Acting as teacher and researcher, I assessed participants' research workbooks using a rubric at the completion of the two six-week long units of instruction . I conducted these assessments at two different times in order to look for consistency and changes. Similarities and differences were examined for each subject across rubrics to identify themes, trends, growth of ideas, changes in thinking or behavior, and unexpected findings. Rubrics were examined longitudinally for each subject from assessments one and two.

Self-assessments of research workbooks. Participants and myself, as teacher and researcher, self-assessed our research workbooks using a rubric at the completion of the two six-week long units of instruction. These self-assessments were conducted at two different times in order to look for consistency and changes. Similarities and differences were examined for each subject across rubrics used by students and teacher

as researcher to identify themes, trends, growth of ideas, changes in thinking or behavior, and unexpected findings. Furthermore, students' rubrics were examined in comparison to the researcher's rubrics from assessments one and two in order to investigate the extent that the researcher's assessment of students' research workbooks aligned with the students' self-assessments of their research workbooks.

Interviews

Students participated in two interviews during the two six-week units in order for them to have an opportunity to share any information that the research workbooks did not provide about their artistic processes. Similarities and differences in responses were examined for each subject across all informal interviews to identify themes, trends, growth of ideas, changes in thinking or behavior, and unexpected findings. Responses were examined longitudinally for each subject from conversations one and two. Responses were examined in comparison to other subjects' responses from conversations one and two.

Participant Work Samples

Artifacts collected included photographs of pages from my research workbook and the students' research workbooks, photographs of my artwork and the students' artwork, written notes and reflections by the researcher, rubrics the teacher as researcher used to assess the research workbooks, and rubrics the students used to self-assess their research workbooks. Additional artifacts collected include lesson plans, teacher evaluations conducted by my evaluator, and a visitor sign in book to my exhibition *Happy Trails*.

Data Analysis Procedures

After receiving Institutional Review Board approval (see Appendix A), I conducted the classroom action research plan. The research questions were addressed primarily by looking at if the researcher's assessment of students' artistic processes using the research workbook was verified by evidence from the informal interviews and students' self-assessments. All findings were represented graphically when possible and qualitatively described in depth when graphic representation does not make sense for data analysis.

Limitations

One possible limitation is the small sample size of students who participated in this study. Due to the small sample size the knowledge acquired through this study may not necessarily contribute to generalized knowledge. However, the main reason I conducted this study was to provide insight into my own teaching and artistic practices so that I can continue to grow as a professional both as a teacher and an artist. As Irwin (2008) points out, "artists are engaged in inquiry with a view toward deeper engagements and understandings over time" (p. 78). Since I looked for information to answer a research question with the same population from which the sample came, the small sample worked well for my purposes. Another limitation may be that I acted as teacher and researcher and have known the majority of the students for over a year. My knowledge of students may have influenced how I analyzed and interpreted their research workbooks, self-assessments, and conversations. My knowledge of these students could be seen as a benefit as it deepened my understanding of the significance of their work in their researcher workbooks.

One definite limitation was that two of the students were pulled out during art on various occasions throughout the study for counseling and a girls' social skills group. They missed part of art class when they were pulled out and I had to catch them up upon their return. The time they missed was never made up.

The biggest limitation is that the last unit was not fully realized due to the suspension of in-person school during the Covid-19 pandemic. Instead of conducting three assessments, interviews, and student self-assessments as planned, I was only able to collect data from two of each. Not only was the study cut short, but my exhibition *Happy Trails* was also shortened by eight days. In addition, the reception date was moved up last minute in light of an announcement by the University of Northern Colorado to cancel events and in-person classes following spring break. While I was able to communicate the changed date to the staff at Evans Elementary School, I was not able to communicate it to my students. The school newsletter was completed and pre-set to be sent out electronically to the school's community, and it was too late according to my evaluator to update it to reflect the change of date of my reception. As a result, only one of my students attended my reception and the only reason she was able to come is because she was the daughter of a co-worker, who knew of the change of date.

CHAPTER IV

RESULTS

Data Analysis

Over the course of 19 weeks, seven of the nine students demonstrated artistic growth as measured by the one-point rubrics completed by the researcher when assessing research workbooks. Participants' research workbooks contained evidence of proficiency for five to nine standards at the end of the first unit and for seven to 12 standards at the end of the second unit. Students were on track to fulfill the MSL of 80% of the students exhibiting proficiency on 10 to 13 standards by May. Three of the nine students were already demonstrating proficiency for ten to 12 standards. Only two of the nine participants' proficiency with the VA CAS stayed the same throughout the two units. None of the participants displayed a decrease in proficiency.

Table 7: Number of Standards the Researcher found Evidence of Proficiency for per Unit

Participant	1 st Unit	2 nd Unit
Jana	5	8
Martin	8	12
Tiffany	8	10
Stan	7	7
Felicia	7	7
Jessica	9	12
Nicole	6	9
Jacob	5	8
Brandy	6	7
Researcher	11	12

When completing self-assessments, a majority of students found evidence for more standards than the researcher in both units. For the first unit, six of the nine participants found evidence for more standards than the researcher. One participant found evidence for the same number of standards as the researcher, but they were still not a perfect match as the participant and researcher differed on two of the standards for which they found evidence. Two participants found evidence for less standards than the researcher. The occurrences of differences between the participants' self-assessments and the researcher's assessments for specific standards ranged from two to nine.

Table 8: Comparison of Self-assessments to Researcher's Assessments for the 1st Unit

Participant	Self-assessment	Assessment	Occurrences of Differences
Jana	8	5	6
Martin	8	8	2
Tiffany	12	8	8
Stan	9	7	2
Felicia	4	7	3
Jessica	5	9	8
Nicole	8	6	5
Jacob	7	5	8
Brandy	8	6	9
Total	69	61	51

For the second unit, five of the nine participants found evidence for more standards than the researcher. Two participants found evidence for the same number of standards as the researcher, but the participants and researcher differed on six of the standards for which they found evidence. Two participants found evidence for less standards than the researcher. The occurrences of differences between the participants' self-assessments and the researcher's assessments for specific standards ranged from six

to 11. In summary, the occurrences of differences significantly increased from 51 times during the first unit to 74 times during the second unit. This was an unexpected outcome since I had taken steps during the second unit to help clarify misunderstandings regarding the self-assessment.

Table 9: Comparison of Self-assessments to Researcher's Assessments for the 2nd Unit

Participant	Self-assessment	Assessment	Occurrences of Differences
Jana	8	8	6
Martin	11	12	8
Tiffany	9	10	7
Stan	14	7	9
Felicia	11	7	8
Jessica	12	12	6
Nicole	13	9	10
Jacob	11	8	9
Brandy	14	7	11
Total	103	80	74

The Role of Assessment

The purpose of assessment is to sit beside students and see what they are learning or not learning so that teachers can make changes to meet their students' needs. When the data collected from the first unit showed that most participants were finding evidence for more standards than I was, I had to figure out why. Was this because they were more familiar with their research workbooks and can find the evidence more easily? Was this because they wanted to give themselves credit for standards that they should not because they are afraid of looking bad? Were they not being honest? Or was it out of a lack of understanding of the self-assessment?

Upon closer examination, I noticed that six of the nine students did not count artist statements as evidence of the standard “Prepare works of visual art and design for presentation.” I hypothesized that this is probably because when I rewrote the standard in student-friendly language I wrote “I can add finishing touches to make my artwork ready for presentation.” Three of the nine students gave themselves credit for this standard anyways because they did finishing touches. Only three of the nine students used their artist statements as evidence. As a result, I decided before students completed the second self-assessment that I would ensure students knew that artist statements counted toward the standard “I can add finishing touches to make my artwork ready for presentation.” Despite me specifically explaining to students that artist statements could be everyone’s evidence because all participants wrote artist statements, none of the students wrote artist statements as their evidence during the second self-assessment. In fact, eight students wrote about adding finishing touches and details and making it ready for presentation. One of the students said he did not have it yet because he had not done his finishing touches. Since adding finishing touches and details are something I can only find evidence of from looking at students’ final artwork and not their research workbooks, I wrote their artist statements as the evidence.

When I observed that the occurrences of differences between what the researcher’s assessments and the participants’ self-assessments increased instead of decreased from the first unit to the second unit, I took a deep dive in the data to see what might explain it. One possible explanation is because the students gave themselves credit for standards that they can do but not necessarily have documentation of in their research workbooks. For example, for the standard “I can learn ways to improve my artwork by

talking about it with my classmates,” Nicole and Felicia claimed that they had learned ways to improve their artwork but they failed to record them and Stan said he can talk about his artwork with his classmates but he failed to explain how feedback helped. For the standard “I can discuss and form opinions about artwork,” Jacob wrote “I can because I can talk about it.” While this is probably true as we had many class discussions about artwork, he did not document his opinions. For the standard “I can solve problems and persist until I finish my artwork.,” Tiffany wrote “Yes, because I make a mistake on every artwork that I make and it always turns out good.” This may be the case but she did not describe solving a problem or persisting.

Another possible explanation is that I assessed students research workbooks between February 13, 2020 and February 19, 2020 and they did not assess their research workbooks until February 25, 2020. While the six-week unit had come to an end and we were in the process of wrapping up a formal class art critique, I exposed students to the work of Akunyili Crosby, had them compare Crosby’s artwork to Do-Ho Suh’s artwork, imagine how Crosby and Do-Ho Suh feel, and compare how these artists work during the two weeks of flex time when the students were self-assessing their research workbooks. These extra classes gave students an opportunity after I had assessed their research workbooks to document evidence for several standards that they had not previously done. Going through their self-assessments, I see that this may account for 23 times when the student found evidence and I did not.

A third explanation is that when I wrote the standards in student-friendly language I over-simplified them and the students do have evidence for the boiled down version of the standard that I provided. But when you look at the more complex standard, the

students do not have evidence of it. This happened four times for the standard “I can determine criteria for evaluating artwork.” The student had indeed circled criteria on the handout I had given them to use when planning their final artwork, but they failed to explain why they chose that criteria, which is what I looked for because the original standard reads as “Discuss and define how to determine appropriate criteria for a given work of art.” This is a finding from the first unit as well that my rewriting of the standard greatly influenced how the students interpreted it. More possible explanations of the students giving themselves credit for standards that I did not find evidence for include a lack of understanding due to language barriers, a learning disability, and/or inadequate instruction on my part. For example, Brandy, who has an IEP, wrote “artist statement” as her evidence for “I can explain the steps an artist may have used to complete an artwork” and for “I can make a plan for creating an artwork.” Clearly, she does not understand the standards or what an artist statement is or both. This indicates that I need to really focus on differentiating my instruction to ensure that diverse learners are able to fully understand the standards and how they apply to their work.

On the flip side, there were times when I found evidence for a standard and the students did not. This reveals that there is a disconnect between what the students do and how they categorize or perceive what they have done. In the first unit, I only found evidence for the standard “I can make connections between art and other things I am learning” for six of the nine participants. So for the second unit, I made a point to teach the standard more thoroughly. While I saw an increase in the times that I found evidence of the standard from six to nine, the number of times the students found evidence decreased from five to three. Even though all participants created artwork with the theme

community and wrote how their artwork connected to the theme of community, they did not think of this as making a connection between art and other things they were learning. My understanding as the teacher acting as researcher was that they were learning about community and making connections between their art and their community. Yet, they did not see it that way. Tiffany wrote on her self-assessment in the “No, I don’t have it yet because...” column “No, because I am not learning anything in homeroom class that I learn in art.” Martin wrote “No I have not made connections between art and other things.” Brandy wrote “I need to do it.” This is a pattern for both Tiffany and Martin. In both units, I found evidence of them making connections when they did not. The following figures show their artist statements and the connections they were making.

I created 3d sculpture of my street. I began my piece by creating houses. I chose to use clay because I could make it 3d. A problem I had was my walls of the house they kept falling over. I solved this problem by making my walls thicker. My art connects to the theme community because it shows my street.

Figure 3: Martin's Artist Statement from the 2nd Unit



Figure 4: Martin's Map of his Neighborhood

My art work connects to the theme
 of "who I am" because
 I love cheetahs and warm sun
 and I would love to run fast
 as the wind through the hot savanna
 sun. I love nature and wild life
 and I wish to protect it. I think that
 if I was a wild animal I would be
 a cheetah, swift and happy and strong.
 I love big cats and love the beautiful,
 soft, fur of cheetahs. This is
 why my sculpture is a cheetah.

Figure 5: Tiffany's Artist Statement from the 1st Unit

I created my school in the shape of its
 mascot. I began my art work by
 sketching it out. I chose to
 use paint because I love paint.

it connects to the theme "community"
 because it is my school and my school
 is my community.

Figure 6: Tiffany's Artist Statement from the 2nd Unit

After collecting data from the first unit, I made the following changes to the second unit:

- Explained standard “I can make connections between art and other things I am learning.”
- Taught vocabulary empathy.
- Let students know that artist statements count toward “I can add finishing touches to make my artwork ready for presentation.”
- Explained what constitutes as research and investigation.
- Clarified what making a plan for an artwork looks like.
- Student teacher gave Brandy one on one assistance during self-assessment.
- Focused on standards that I found little or no evidence of.

These changes may have contributed to the increase in number of standards in which I found evidenced in student work between the first and second units. In the first unit, I only found evidence for 10 standards and in the second unit, I found evidence for 13 standards. I decided to target the standards in which I was yet to see evidenced in student work. In the second unit I included a reflection question asking for other ways an artist may create an artwork with the theme community and showed Do-Ho Suh’s art with the opening question “How does Do-Ho Suh’s art connect to the theme community?” I prompted students to select criteria on a handout used for planning their art and explain their choices. Lastly, I facilitated a formal whole class art critique.

Table 10: Comparison of Standards Researcher Found Evidence for per Unit

VA CAS	1 st Unit	2 nd Unit
Hypothesize the steps an artist may have used to complete a work of visual art or design.	0	0
Suggest alternative ways an artist could have communicated an idea.	0	1
Recognize how the human experience is expressed in diverse ways.	0	0
Respond to works of art using inference and empathy.	1	4
Discuss and define how to determine appropriate criteria for a given work of art	0	4
Discuss and form an opinion about the social and personal value of art.	1	1
Research from multiple sources to inspire works of visual art and design.	9	8

Table 10., continued

VA CAS	1 st Unit	2 nd Unit
Investigate the ways alternative ideas are generated.	9	9
Generate multiple ideas in order to select the idea that best communicates intended meaning.	9	9
Communicate a plan for completing works of visual art and design.	9	9
Analyze through collaborative discussion how personal works of art can be refined to effectively communicate.	0	5
Justify how choice of media communicates personal intent.	5	4
Problem-solve and persist to determine the outcome of a final product.	4	8
Prepare works of visual art and design for presentation.	8	9
Identify and describe how visual art and design communicate meaning between any subject, discipline, event or issue.	6	9
Compare works of art between diverse cultures to understand how the role of art is perceived within a given community.	0	0
Compare how artists work in different cultures and at different times in history.	0	0
Total standards the researcher found evidence of proficiency for in students' research workbooks.	10	13

If I had been able to fully teach the third unit, I would have made the following changes:

- Give students more practice comparing artwork and how artists work.
- Emphasize for the last self-assessment that students are not assessing their abilities but their evidence of learning as documented in their research workbooks.
- Reteach criteria.
- Explain how we are making connections more clearly.
- Reteach empathy.
- Make a Making Thinking Visible wall with academic vocabulary (criteria, empathy, and perspective), timeline of activities, connections made, list of sources we used to conduct research, and the ways we generated ideas.
- Continue to focus on standards that I found little or no evidence of.

These are still actions I will take to improve my teaching practice when we return to in-person school. Going through this process helped me identify areas where I need to improve and areas of strength. The same is true for students, especially Tiffany who fostered metacognition by thoughtfully completing the self-assessments.

9/17 Date: Feb 25

First and Last Name: **Tiffany**

Self-Assessment Rubric

Areas that Need Work <i>No, I don't have it yet because...</i>	Criteria <i>Standards for this Performance</i>	Evidence <i>Yes, I have it because...</i>
No, because I don't have evidence that I can do it because I can't do it	I can explain the steps an artist may have used to complete an artwork.	
	I can explain different ways for an artist to express an idea.	yes, because I can make a list of different ideas for one artwork
no, because 90% of the time I have no idea what people are talking about	I can look for different perspectives expressed by others in artwork.	
no, because art works from other/different cultures always confuse me.	I can respond to artwork with empathy.	
no, I can't decide on anyone's artwork.	I can determine criteria for evaluating artwork.	
	I can discuss and form opinions about artwork.	yes, because I drew/wrote a concept map for the artwork
	I can research from multiple sources to gather ideas.	I drew observational drawings of the school and made a map.
	I can investigate the ways different ideas are generated.	yes, because I can think of 5 different ways to make one idea work
	I can generate many ideas and pick the best one for an artwork.	yes, because I can think of 10 different ways to make an idea for an artwork and choose the best way to make it
	I can make a plan for creating an artwork.	yes, because I am always thinking of at least 5 plans to make an artwork or project.
no, because the ideas they give me don't look very good in my mind.	I can learn ways to improve my artwork by talking about it with my classmates.	
	I can explain what materials I chose and how they help express my ideas.	yes, because I filled out a paper doing that.
	I can solve problems and persist until I finish my artwork.	yes, because I make a mistake on every artwork that I make and it always turns out good
	I can add finishing touches to make my artwork ready for presentation.	yes, because I love putting as many little details on my artworks as I can
no, because I am not learning anything in home room class but I learn in art	I can make connections between art and other things I am learning.	
no, because I am bad at comparing things	I can compare artwork from different cultures and understand how people from different cultures see art.	
no, because I am bad at comparing things	I can compare how artists work in different cultures and at different times in history.	

Figure 7: Front and Back of Tiffany's Self-assessment for the 2nd Unit

Tiffany identified idea generation as a strength. For “I can generate many ideas and pick the best one for an artwork” she wrote “Yes, because I can think of 10 different ways to make an idea for an artwork and chose the best way to make it.” Lastly, for “I can make a plan for creating an artwork” she wrote “Yes, because I am always thinking of at least 5 plans to make an artwork or project.” This strength was also evident when I interviewed her about her artwork. For the second unit, she talked about two artworks, one a drawing of our school as a wolf and the other a three-dimensional cardboard sculpture of our school as a wolf. Tiffany also identified areas that need work. For both “I can compare artwork from different cultures and understand how people from different cultures see art” and “I can compare how artists work in different cultures and at different times in history” she answered “No, because I am bad at comparing things.” For “I can look for different perspectives expressed by others in artwork” she responded with “No, because 90% of the time I have no idea what people are talking about.”

All participants but Tiffany found evidence for more standards during the second self-assessment than during the first self-assessment. In the first self-assessment, Tiffany found evidence of proficiency for 12 standards but in the second self-assessment she only found evidence for nine. This may be attributed to Tiffany having a better understanding of the standards during the second self-assessment. On the first self-assessment for “I can explain the steps an artist may have used to complete an artwork” she wrote “Yes, I have it because... I explained how I made my artwork in my workbook.” For the same standard on the second self-assessment, she wrote “No, because I don’t have evidence that I can do it because I can’t do it.” Perhaps she knows now that the standard does not mean explain the steps you used but that an artist may have used. Her deepened understanding is also evident with the standard “I can investigate the ways different ideas are generated.” She found evidence for this standard in the second self-assessment but not in the first. On the first, she wrote “I need to learn how to do this because I usually have no idea what some people are talking about” and on the second, she wrote “Yes, because I can think of 5 different ways to make one idea.” Tiffany is the only student who

cited the specific examples of how we conducted research that I reviewed with the class. She wrote “I drew observational drawings of the school, and studied maps.” While data collected from her self-assessments may at first glance indicate that she had regressed, a closer look as well as data collected from the researcher’s assessments provide evidence that she had indeed made progress.

Models of Assessment

While the research workbook helped me identify areas where I needed to improve my teaching practice and helped me to make changes that improved my effectiveness, scoring the students’ research workbooks was very time-consuming. In “The Forms and Functions of Educational Connoisseurship and Educational Criticism,” Eisner (2002) points out:

We have underestimated the amount of time useful educational evaluation requires. Easy test administration and test scoring have been seductively simple tools for evaluating what children learn and experience and what teachers and schools teach. We might very well have to face up to the fact that the kind of evaluation that will be useful to the teacher will need to pay attention not only to the outcomes of teaching and learning but also to the process. (p. 241)

Not only does authentic assessment of students require time but it also requires looking at multiple data points. In addition to assessing students research workbooks, I spent time talking with students about their artwork. On one occasion an interview revealed proficiency of a standard that the research workbook did not.

During the first interview, Jessica talked about showing her art and having others judge it by comparing its accuracy to her actual personal object. She had made a clay replica of her bracelet and said she was excited that she might bring the real bracelet so people could compare it to what she made and see if she did well or bad on her art. Clearly, accuracy is the criterion she has determined for evaluating her artwork. Her

proficiency for determining criteria had not been evident through the assessment of her research workbook.

Other times interviews reinforced what the research workbook had already shown. During Jessica's second interview, she talked about how her artwork was special to her and her best friend because it showed their dream of holding a star at midnight on top of a mountain or something where they can see the whole city and maybe it will happen one day. This demonstrated that Jessica can "Discuss and form an opinion about the social and personal value of art." The researcher found evidence for this in her research workbook as well.



Figure 8: Jessica's Final Artwork for the 2nd Unit

In addition to interviews, the researcher collected data in the form of written notes and reflections. On January 10, 2020, after doing observation drawings of our school, I wrote that Brandy asked if she could take her research workbook home over the weekend to do more drawings and bring back next week. I told her no because I did not want to

risk her not bringing it back, but I gave her a pack of papers stapled together to keep at home. Overhearing us, Nicole requested a packet of papers to take home too. Just as Marshall and D'Adamo (2011) claimed, I began to see “students come to understand themselves as artists with their own interests and ways of thinking” (p. 18). While I was only able to find evidence of proficiency for one more standard the second unit than I did the first unit for Brandy, this observation shows that she is developing a passion for art.

In addition to pages from my own research workbook, pages of students' research workbooks helped provide me with a deeper understanding of participants. I found evidence of proficiency for the same number of standards for Felicia for both units. A contributing factor is that she is non-English proficient. While assessing her research workbook, I photographed pages of her research workbook that allowed me to see what part of the curriculum she was able to access and where she struggled. Effective models of assessment involve the collection of multiple pieces of information in order to create a comprehensive picture of the student's growth over time.

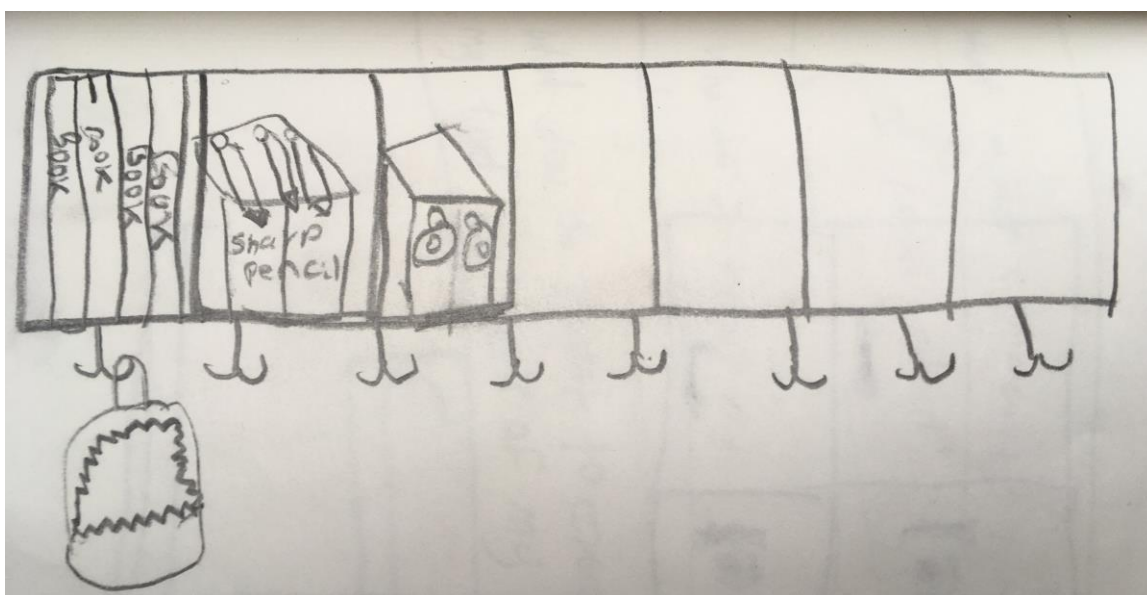


Figure 9: Felicia's Observation Drawing of Backpack Hangers

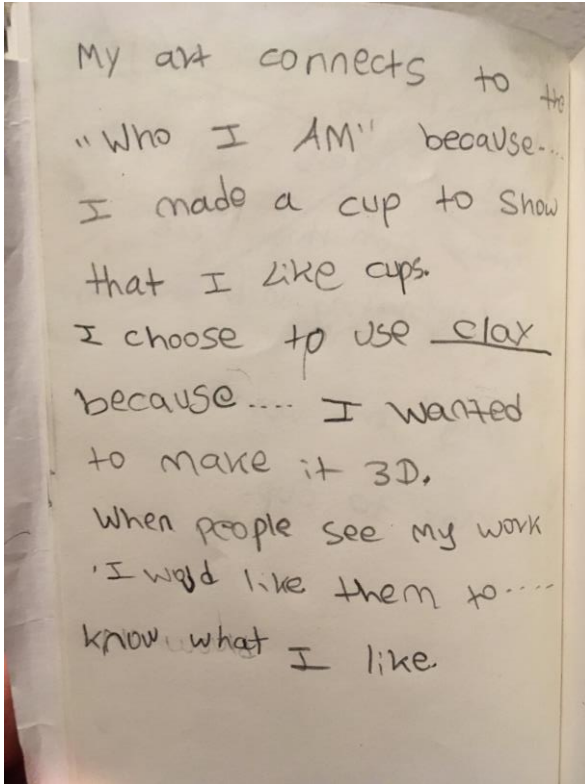


Figure 10: Felicia's Artist Statement for 1st Unit

The Impact of Studio Practice on Teaching Practice

I found evidence for 11 of the 17 standards during the first self-assessment and 12 of the 17 standards during the second self-assessment. The second self-assessment was only of entries produced after I conducted the first self-assessment. Standards I found no evidence of in my research workbook are:

- Hypothesize the steps an artist may have used to complete a work of visual art or design.
- Suggest alternative ways an artist could have communicated an idea.
- Discuss and define how to determine appropriate criteria for a given work of art.
- Compare works of art between diverse cultures to understand how the role of art is perceived within a given community.

The same standards I struggled with are the ones my students struggled with too. Clearly, I need to focus on these standards more in both my studio and teaching practices.

One standard I found evidence of during the first self-assessment but not the second is “Compare how artists work in different cultures and at different times in history.” This is because I intentionally used a Venn diagram as an example for my students during the first unit when I researched Maya Lin and Erika Osborne. Two standards I found evidence for on the second self-assessment but not the first are: “Respond to works of art using inference and empathy” and “Discuss and form an opinion about the social and personal value of art.” I was able to meet these the second time because of reflections I had written about the Monet exhibit I had attended at the Denver Art Museum.

While I shared my studio practice with my students throughout the study, the majority of the sharing was planned to take place during the third unit that I did not get to completely teach. Due to a lack of communication about the date change of my reception, only one student attended my exhibition *Happy Trails* in the Mariani Gallery at the University of Northern Colorado (UNC). The student signed my visitor sign-in book with “Mrs. Felder, Great Job! Your artwork is very detailed, and I hope you are proud of yourself! I think it is great that you have your own exhibit!” I also had a couple of co-workers attend. One wrote “Wow! Your work is amazing! Thanks for sharing your passion with the world.” Another wrote “You are a very talented artist! I love your work, and the message that it sends. I didn’t realize how many different mediums you use/create.” My evaluator and the director of the school also attended. Sharing my studio practice with members of my school’s community made me feel more confident as an artist and a teacher. I realized just how important it is to provide students with opportunities to share their art.

In addition to *Happy Trails*, I also invited my entire school community to attend the online reception for UNC's *2020 Annual Student Exhibition*, in which I had three pieces. During the reception, the juror awarded me with Best in Show. A few students attended part of the reception including Tiffany, whose family emailed me to congratulate me and thanked me for teaching art. I shared the online exhibition and news of my award with my school community and received many positive responses from colleagues, my evaluator, and students. I hope that my accomplishment will inspire my students.

Data Analysis Summary

The research workbooks provided evidence of student learning but the student self-assessments revealed students' inabilities to accurately self-assess independently. The researcher and students seldom agreed on the evidence or lack of evidence the research workbooks provided for specific standards. Interviews were for the most part ineffective as a means of assessing student performance. However, at times, they were beneficial for revealing personal meaning the students associated with their artwork. I also believe taking time to talk to the students helped to build rapport.

While the research workbook was overall a meaningful assessment tool of student's artistic processes, findings suggest that the assessment of students' proficiency with the standards should not be limited to just what they document in their research workbooks. A more effective model of assessment may include assessment of student performance during art critiques, class discussions, and studio times. A complete picture of students' learning needs to take into account all aspects of their performance. A single measure of learning does not give a comprehensive understanding of what students have

or have not learned. It is just one piece of the puzzle. Even with a triangulated approach of researcher's assessments, student self-assessments, and interviews, I was not getting a picture of the whole child. The same is true for my own artistic practice. The research workbook provided insight into what I should work on but I do not think it can stand alone as an assessment tool of my artistic process. I also need to consider my artwork and people's responses to my work to achieve a deeper understanding of my own artistic growth.

CHAPTER V

DISCUSSION AND CONCLUSIONS

Implications of this Research and Future Research

Based on the data I received during this research project, I know that research workbooks are not an adequate way to measure student learning on their own but used in conjunction with other assessment methods I believe they could be an effective tool to assess students' proficiency with the VA CAS. In order to expand my understanding of what students are learning, I would like to develop a VA CAS checklist, which I could use to check off anytime a student demonstrates proficiency. This way assessment is not limited just to interviews, research workbooks, and self-assessments but also includes other class activities such as art critiques and studio times.

Concerns

Some students complained about writing during art class. Admittedly, time dedicated to writing reflections and artist statements did take away from studio time. However, I firmly believe that artists and therefore, students, should be able to communicate their ideas both visually and verbally. Another concern is that scoring students' research workbooks took too much time and is not a sustainable method of assessment. That is why in the future as I continue to implement research workbooks I plan to use a checklist instead of a one-point rubric to make scoring more efficient. I also plan to score students' research workbooks more frequently instead of waiting until the end of a unit. That way students will receive feedback more regularly and in time for

them to make changes and improve before the unit is complete. I will also be able to see who needs additional help and be able to provide help to those who need it in a timely manner. Checking students' research workbooks consistently throughout a unit will help me to hold students accountable for their work and spread the workload out for me evenly throughout a unit instead of it all compounding at the end of each unit.

Unexpected Benefits

This research study led to the development of new curriculum that incorporated contemporary artists as well as culturally relevant artists. These new lesson plans were not only engaging for the students but also exciting and interesting for me to teach. I have been teaching for 12 years and had fallen into a rut of teaching the same projects year after year. I really enjoyed developing these inquiry-based units and plan to continue to have students research themes in art. The *Who am I?* unit I designed for this study led to student work that fit perfectly with the 2020 "Who I Am" art contest organized by the Office of Culturally and Linguistically Diverse Education. To my surprise, two students received awards in this statewide art contest. One was the elementary winner for the entire state and the other was an artist of honorable mention. I am looking forward to teaching the *What is my world?* unit next school year since the COVID-19 pandemic prevented me from teaching the unit during this research study.

In order to stay informed of the latest developments in the field, I will continually seek professional development opportunities such as conferences, artist talks, and art educator speaker series. I will also challenge myself to teach an increasingly diverse range of artists, both past and contemporary. To help students make meaningful connections across disciplines, I will collaborate with other teachers and experts when

planning future units. I will also continue to enter student work in exhibitions and contests at both the local and state levels.

Another unexpected benefit is that engaging in personal artmaking has renewed my passion for art and learning. This experience has strengthened my studio practice by allowing for the development of ideas for my personal work and providing me with opportunities to share my art with others through teaching and exhibitions. Moving forward, I fully intend to treat my artist identity and teacher identity with equal importance. My next steps are to develop an artist talk, online presence, and branding. I want to stay active in the art world by applying for exhibitions and artist residencies.

Improving My Practice

I began this study with a need to find a way to more accurately evaluate teaching performance, but then as the study progressed, I found myself focusing more on accurately assessing students and how they learn the VA CAS. Since my teacher evaluation is primarily determined by student data including data from standardized tests in content areas I do not directly teach, I needed to discover how to systemically collect and analyze data in the art classroom. This was the first step toward providing my evaluator with a means to evaluate my teaching performance on data pertaining directly to my specific content area. While I believe I have learned how to authentically assess students and how to present evidence of student learning, I do not know how this issue will be resolved because evaluations and accountability have been waived this year due to COVID-19. In order to advocate for next school year's evaluations to be based entirely on data of student artistic growth, I will continue to better equip myself with the skills

and knowledge I need not only to authentically assess students but also to teach them how to self-assess.

Findings of this study revealed that students struggled with self-assessing accurately. To strengthen students' abilities to self-assess, I plan to teach self-assessment to students as early as kindergarten. I believe that years of routine practice of self-assessment will help students develop the ability to identify evidence of their proficiency with the VA CAS. I also plan to scaffold and model self-assessing immediately following any tasks that students perform that provides evidence of their proficiency with the VA CAS. Just like with the scoring of their research workbooks, I want to have students self-assess throughout a unit instead of waiting until the end. I found that six weeks was too long for students to be able to recall what they had done in art class and to make connections between their learning and the VA CAS. I believe having students engage in self-assessment right after a lesson will foster metacognition. Another finding from this study suggests that students who are culturally linguistically diverse (CLD) and who have IEPs require differentiated instruction to be successful with the self-assessments.

This research study leaves me asking the following questions:

- How can research workbooks be tailored to meet the needs of all students including those who are averse to writing, on IEPs, or CLD?
- What is the balance between studio time and documenting one's artmaking process through ideation and reflection?
- How can assessment data be used to determine grades that are meaningful and appropriate?
- How can I assess students more efficiently?
- How can I help students develop their abilities to accurately self-assess their learning and therefore, foster metacognition?

- Would I have successfully met my MSLs had the school year not been disrupted by the COVID-19 pandemic?
- Will my evaluator embrace a teacher evaluation method that involves looking at data of student artistic growth versus test scores in ELA and mathematics?
- Does sharing my artmaking and artistic accomplishments influence or inspire students?
- Am I viewed as more competent because I engage in an ongoing studio-based inquiry and was awarded Best in Show?
- Is the knowledge generated from this study transferable?

Recommendations

Regardless if research workbooks are an effective assessment tool in other educational contexts, I now see the value of taking a deep dive in student data. It is important for all teacher to ask themselves what are students learning, are they making progress, what is the evidence, and who is not learning and why. No matter what subject or grade level teachers teach all teachers need to develop a reflexive practice. They need to ask themselves am I making a positive impact on student learning. How can I meet the needs of all my students and ensure all students reach their full potential? What am I doing well and where do I need to improve? Being able to ask these questions is key to becoming more effective and combating burn out or stagnation.

Specifically, for art teachers, I recommend taking the time to develop your personal art. I know that teaching is very demanding and it is easy to lose yourself in the world of teaching, planning, grading, attending meetings and working late during parent teacher conferences, but it is important to make time to nurture your own love for art. Make it happen even if it means you have to let something else go. Maybe you do not switch out the student art in the hallways as frequently or you let your classroom become

messy, which are two things I was definitely guilty of during this study. It is worth it. I regret nothing. I have become more passionate than ever about artmaking and I plan to continue to pursue opportunities to make and exhibit my art. I agree with Rae (2013) that “a studio practice continuously challenges a teacher’s skills and creativity and may enhance overall instructional practice” (p. 297). My fervor for artmaking and learning may rub off on my students and that is my ultimate goal. Above all, I want to foster within my students a lifelong commitment to art and learning.

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Appendix A: Institutional Review Board Approval



Institutional Review Board

DATE: March 11, 2020

TO: Amy Felder
FROM: University of Northern Colorado (UNCO) IRB

PROJECT TITLE: [1473801-2] Impact of Research Workbooks on Assessment
SUBMISSION TYPE: Amendment/Modification

ACTION: MODIFICATION APPROVED/VERIFICATION OF EXEMPT STATUS
DECISION DATE: March 11, 2020
EXPIRATION DATE: September 10, 2023

Thank you for your submission of Amendment/Modification materials for this project. The University of Northern Colorado (UNCO) IRB approves this project modification and verifies its continued status as EXEMPT according to federal IRB regulations.

Request to add collection of additional artifacts as outlined in the narrative approved. Please also update the logo on the assent form (to match consent), for any future use. There is no need to resubmit it to the IRB for review or approval.

Thank you!

We will retain a copy of this correspondence within our records for a duration of 4 years.

If you have any questions, please contact Nicole Morse at 970-351-1910 or nicole.morse@unco.edu. Please include your project title and reference number in all correspondence with this committee.

This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within University of Northern Colorado (UNCO) IRB's records.

Appendix B: Who am I Lesson Plan

Grade Level & Class	4 th Grade Class (10-18-19)
Arts Lesson Designer	Amy Felder
Short statement about designer & lesson development & place in Long Range Plans	<p>The lesson supports my goal for writing: I will provide opportunities and support for students to practice their writing skills through writing entries in their research workbooks so that 80% of students in a fourth grade class will be in the 50th percentile on their MAP test for writing by May. The lesson also supports my goal for inquiry: I will provide opportunities and support for students to generate questions that lead to further inquiry and self-directed learning so that 80% in a fourth grade class will be proficient on 10 to 13 standards on the art rubric by May.</p> <p>Prior to this lesson, fourth graders completed a unit exploring their community. They learned about the history of Evans and drew a map of what they imagined Evans looked like 150 years ago. Students learned how to use their research workbooks to respond to opening questions, conduct research about the history of Evans, plan their artwork, and write reflections.</p>
Unit Description Big idea? Essential questions?	<p>During this unit, students will use their research workbook to explore their identities.</p> <p>Who am I?</p> <p>What is the purpose of art?</p> <p>What do artists do when they make mistakes?</p> <p>What are problems artists encounter during art-making?</p> <p>How do artists solve problems?</p> <p>How do artists persist until their artwork is finished?</p> <p>How do artists know when their artwork is finished?</p> <p>How do artists create artwork that represents who they are?</p>
4th Grade Writing – Common Core Content Standards Addressed: National Core Art Standard Addressed: CO Visual Arts Content Standard Addressed:	<p>Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience (CCSS: W.4.5) Use knowledge of language and its conventions when writing, speaking, reading, or listening. (CCSS: L.4.3) Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. (CCSS: L.4.2)</p> <p>Cr2.1.4 Explore and invent art-making techniques and approaches.</p> <p>Standard: 3. Invent and Discover to Create</p> <p>Utilize media in traditional and inventive ways to communicate personal intent.</p> <p>b. Problem-solve and persist to determine the outcome of a final product.</p>
Instructional Objective	The students will be able to: solve problems and persist until they finish their artwork.
Description of Instruction	Methods of instruction: whole class instruction, independent work, differentiation for multiple intelligences and for students who have IEPs, receive ELD services and/or have behavior problems
Teacher Procedures	<p>Introductory Statement: Today we're going to create a drawing that represents who we are.</p> <p>Teacher will:</p> <ol style="list-style-type: none"> 1. Greet students at the door with a handshake. 2. Lead students in good things. 3. Invite students to share their responses to the opening question.

	<ol style="list-style-type: none"> 4. Introduce the social contract focus and objective. 5. Lead students in a discussion about the video. 6. Share about her experience visiting the Denver Art Museum and her research workbook entries. 7. Check-in with students who have IEPs and/or receive ELD services for understanding during independent work time.
Student Activities	<p>Students will:</p> <ol style="list-style-type: none"> 1. Copy question and enter a response in their research workbooks. 2. Share good things. 3. Listen to the video. 4. Respond to questions about the video. 5. Create a drawing that represents who they are. 6. Write a reflection in their research workbooks.
Assessment	√Teacher Observation √Rubric Checklist Written test
Materials Needed	Research workbooks, pencils, erasers, crayons, colored pencils, sharpies, markers, and pens
Resources	Video No One Else You Could BE Shantell Martin TEDxTeen, Google Slides Shantell Martin, and teacher's research workbook
Differentiation	<p>Differentiation for multiple intelligences:</p> <p>Music – Students listen to music while they work.</p> <p>Art – Students create art.</p> <p>Self – Students create art that represents themselves and write reflections.</p> <p>Math – Students may include geometric shapes in their art.</p> <p>Word – Students participate in discussion, write entries in their research workbooks, and may choose to include words in their artwork.</p> <p>Nature - Students may include organic shapes in their art.</p> <p>Body - Students have option of standing, sitting on stools, or sitting on carpet. Students practice hand-eye coordination during the physical activity of drawing.</p> <p>People - Students participate in good things.</p> <p>Differentiation for students who have IEPs and/or receive ELD services: Teacher uses visuals and checks for understanding.</p> <p>Differentiation for student who has behavior problems: Student has access to two pressure passes to request a break.</p>

Appendix C: What is My Community Lesson Plan

Grade Level & Class	4 th Grade Class (1-7-20)
Arts Lesson Designer	Amy Felder
Short statement about designer & lesson development & place in Long Range Plans	<p>The lesson supports my goal for writing: I will provide opportunities and support for students to practice their writing skills through writing entries in their research workbooks so that 80% of students in a fourth grade class will be in the 50th percentile on their MAP test for writing by May. The lesson also supports my goal for inquiry: I will provide opportunities and support for students to generate questions that lead to further inquiry and self-directed learning so that 80% in a fourth grade class will be proficient on 10 to 13 standards on the art rubric by May.</p> <p>Prior to this lesson, fourth graders completed a unit exploring their identity. Students learned how to use their research workbooks to respond to opening questions, conduct research, plan their artwork, and write artist statements. Also, at the beginning of the year, students participated in the Evans 150th Anniversary Contest, which required them to create a map of what Evans looked like 150 years ago.</p>
Unit Description Big idea? Essential questions?	<p>During this unit, students will use their research workbook to explore their communities.</p> <p>What is my community?</p> <p>How does the physical environment affect human activity?</p> <p>How does human activity affect the environment?</p> <p>How have places in Colorado changed and developed over time due to human activity?</p> <p>Which geographic tools are best to locate information about a place?</p> <p>How can you illustrate, using geographic tools, how places in Colorado have changed and developed over time due to human activity?</p> <p>How can mapping our community (as artist-cartographers) help us learn about ourselves?</p>
4th Grade Writing – Common Core Content Standards Addressed: 4th Grade Social Studies – Common Core Content Standards Addressed: National Core Art Standard Addressed: CO Visual Arts Content Standard Addressed:	<p>Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience (CCSS: W.4.5) Use knowledge of language and its conventions when writing, speaking, reading, or listening. (CCSS: L.4.3) Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. (CCSS: L.4.2)</p> <p>Use geographic tools to research and answer questions about Colorado geography. Connections are developed within and across human and physical systems.</p> <p>Cr2.1.4 Explore and invent art-making techniques and approaches.</p> <p>Standard: 2 Envision and Critique to Reflect</p> <p>2. Synthesize researched and visual information to imagine, inform and plan possible next steps in personal artmaking.</p> <p>a. Research from multiple sources to inspire works of visual art and design.</p>
Instructional Objective	The students will be able to: illustrate, using geographic tools, how places in Colorado have changed and developed over time due to human activity.
Description of Instruction	Methods of instruction: whole class instruction, independent work, differentiation for multiple intelligences and for students who have IEPs, receive ELD services and/or have behavior problems

Teacher Procedures	<p>Introductory Statement: Today we're going to create a map of our community.</p> <p>Teacher will:</p> <ol style="list-style-type: none"> 1. Greet students at the door with a handshake. 2. Lead students in good things. 3. Invite students to share their responses to the opening question. 4. Introduce the social contract focus and objective. 5. Share her sound map of her community. 6. Lead students in a discussion about the essential questions (using think-pair-share). 7. Check-in with students who have IEPs and/or receive ELD services for understanding during independent work time.
Student Activities	<p>Students will:</p> <ol style="list-style-type: none"> 1. Copy question and write a response in their research workbooks. 2. Share good things. 3. Participate in think-pair-share and discussion. 4. Create a concept map of their community. 5. Create a map of their community. 6. Write a reflection in their research workbooks.
Assessment	√Teacher Observation √Rubric Checklist Written test
Materials Needed	Research workbooks, pencils, erasers, crayons, colored pencils, sharpies, markers, and pens
Resources	Maps of Evans, Google Slides What is my community?, books <i>Images of America Evans</i> , and teacher's artwork and research workbook
Differentiation	<p>Differentiation for multiple intelligences:</p> <p>Music – Students listen to music while they work.</p> <p>Art – Students create art.</p> <p>Self – Students map their communities and write reflections.</p> <p>Math – Students may use grids.</p> <p>Word – Students participate in discussion, write entries in their research workbooks, and may choose to include words in their artwork.</p> <p>Nature – Students include the physical environment in their maps.</p> <p>Body - Students have option of standing, sitting on stools, or sitting on carpet. Students practice hand-eye coordination during the physical activity of drawing.</p> <p>People - Students participate in good things and think-pair-share.</p> <p>Differentiation for students who have IEPs and/or receive ELD services: Teacher uses visuals, checks for understanding, and facilitates think-pair-share.</p> <p>Differentiation for student who has behavior problems: Student has access to two pressure passes to request a break.</p>